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ILLUSTRATIONS
OF
GEOMETRIC TRACERY,
FROM THE PANELING BELONGING TO
Carlisle Cathedral.

BY
ROBERT WILLIAM BILLINGS,
AUTHOR OF THE ILLUSTRATIONS AND HISTORY OF CARLISLE CATHEDRAL.

London:
PUBLISHED BY THOMAS AND WILLIAM BOONE, 29, NEW BOND STREET;
AND THE AUTHOR, MANOR HOUSE, KENTISH TOWN.
1842.

The second view of the Screen is from the Author's Illustrations of Carlisle Cathedral. It has been thought advisable to reprint it here for the better explanation of the subject to those who are not in possession of that work.

R. W. B.

ILLUSTRATIONS,

§c. §c. §c.

THE Geometric Panels forming the present Illustrations are the remains of an exceedingly valuable and extensive collection, for the whole Choir of Carlisle Cathedral, eastward of the still beautiful stalls, was separated from the aisles by Screens filled with elaborate Tracery. The same enrichment extended also to the Chapel of St. Catherine, a small building, which may be termed an aisle to the south transept.

In the year 1764, the Cathedral was, according to the Churchwardens' usual phrase, repaired and "*beautified*." The whole of the Choir screens were removed, and their place occupied by a high stone wall, covered in the Choir by a wooden arcade in the true Gothic style of that period, and in the aisles by a carefully-executed coat of plaister. The old and useless paneling was removed to some of the outbuildings, and by far the greater portion either lost or destroyed.

All that remains of the original enrichments may be described as the frame-work of an exceedingly mutilated screen, in the possession of William Cowper, Esq. at Carlton Hall, near Penrith, from which is derived the materials for Plates XIX. and XX., and three of the borders in Plate XVIII.; three beautiful Panels (Plates XV. XVI. XVII.) forming part of a sideboard at Featherstone Castle, Northumberland, the seat of Lord Wallis (formerly proprietor of Carlton Hall); one Panel (Plate VIII.), and the fourth border of Plate XVIII. inserted in the modern doorway to the aisle of the Choir against the Bishop's Throne.

Fortunately, the Chapel of St. Catherine was not considered worth *beautifying*, and in this building we have two screens, containing the remainder of the subjects represented, numbering thirteen out of twenty. Three or four Panels at present in the Chapel belonged to the Choir. The originals, most probably, from being more beautiful, were cut away; the ends of the original tracery being still left, give very much the appearance of their having been taken to fit a particular piece of furniture.

The whole of these screens are reputed to be the work of Prior Thomas Gondibour, who presided over the Cathedral from 1484 to 1507. His initials (T. G.) were beautifully cut in the Tracery of a Panel in the doorway shewn in the frontispiece, but this was unfortunately pulled out and taken away by some mischievous person in the winter of 1839. Another cypher (T. G.) forming the cusps of a trefoil from Carlisle (see Plate XX.) may be taken for Prior Gondibour's. It is among the remains at Carlton Hall. Their date may therefore fairly be taken at about 1500.

Some of these specimens are perhaps not so interesting in themselves for elegance of design, as from the circumstance of their proving that the majority were designed on the same ground-work, namely, the division of a square into four parts each way, or sixteen squares. Upon the lines of these squares the centres of all the curves are worked, and upon such a simple calculation of parts, as to render their construction perfectly easy. It is of essential importance to have a ready means, well known, of re-producing the beautiful forms displayed in many of these and other specimens, and the author trusts that the means he has adopted will effect this, for no workman, following the descriptions given of each Plate, can possibly err in any of the leading features.

From the direct evidence here produced of system in the minor detail of a once beautiful church, is it not fair to assume that the mis-called *Gothic* Architects had a system for objects of greater magnitude, that is the buildings themselves?

In the leading curves of these examples, nothing can exceed their accuracy of projection, but all the foils contained within are (most probably from their diminutive size) worked by hand. In fact, they are too small to be otherwise, unless the most extraordinary fastidiousness had been exercised

upon them. They are all drawn half the real size, except Plates IX. and X. which are the full dimensions.

The two screens, as shewn in the frontispiece, and in the Plate from the author's work on Carlisle Cathedral, may be briefly described as consisting of a basement of draped Panels, and immediately above them a series of perforated Geometric Panels. Above these is a plain string, surmounted in the former Plate by a series of smaller Panels, and in the latter by the running border shewn in Plate XI. The upper portion of the screen is a series of detached piers, all ornamented in one screen by flying buttresses, and in the other a buttress on each alternate pier. Above the buttresses is a square-headed capital, and the space between this and the upper string (ornamented alternately over each pier with a head and leaves) is filled with tracery, the cusps of the lower arch being ornamented with leaves.

The string is surmounted by a richly decorated parapet, with a border of leaves connected at the top by a bead. In the centre of each parapet is a shield, the armorial bearings of which have disappeared. The whole of the frame-work of the mutilated screen at Carlton Hall was ornamented with the bordering, shewn in Plate XVIII. fig. B.

DESCRIPTION OF THE PLATES.

Plate II. THE specimen at the side of this Plate is the simplest as regards the division of the Panel into sixteen squares, consisting in fact of sixteen equal quatrefoils. The construction of Plate II. is equally simple, being composed of the arc of a circle, whose boundary touches the points *b*, *c*, *d*, the centre *a*. being determined by the intersection of lines perpendicular to the chords *b. c.* and *b. d.* The trefoil is composed of equal circles within the triangle *e*.

Plates III. IV. V. The centres of the principal figure in these examples will be found at the angles and centre of the parallelogram, containing two equilateral triangles, as marked on the margin of Plate III. (*a*)

Plate III. Draw the circle *A.* and arcs *A. A.*, and within it the two circles *B.* The triangular spaces left within the figure are filled with the circles *c.* The upper and lower extremities have semi-quatrefoils. The circle filling the space which should correspond with *c.* is larger on account of the Panel being made square instead of the parallelogram of a hexagon, whereby the additional space shewn in the small diagram (*b*) is added to the figure.

Plate IV. This is varied by changing the two inner circles, *b. c.* from the width to the length of the figure. The radius of the small circle *d.* is one third of the largest, as figured. This example is rather less in height than width: the inequality mentioned in the last is consequently less apparent.

Plate V. The difference of this example, from the preceding, is in the small circle (*e.*) being brought to the centre of the principal figure, instead of the extremity, and in the introduction of another circle (*d.*) into the triangular space, between the circles, *A. B. c.*

Plate VI. This is also a variation of the preceding example, but the divisions of the height and width, approach nearer to a square, the parallelogram of the Panel being nearly in the proportion of $\frac{22}{21}$. Produce the semicircle *A.* of one half the width of the Panel, and the segments *B.* from the centre *a*, intersecting the points, *b. c.*

Plate VII. The arrangement of this beautiful example, differs totally from the preceding, and the division of height and width are perfectly equal. Divide the square into four parts, and from figure 3 of these produce the circle *a.* The distance between the boundary of this circle and the intersec-

tion of the square, at *b*, gives the radius of the small circle *c*. These circles being produced at the intersection of the alternate squares, the outer connecting arc (*d*.) is struck from the point *g*, touching the small circles at *e*. *e*. and the intersection of the square at *f*.

Plate VIII. This is perfectly square, and divided in the same manner as the preceding examples. The diagonals of each square being drawn, produce the circle *a*, within four of the diagonal squares. The small circle *b*, of two-thirds the diameter of the preceding, completes the outline.

Plate IX. The sub-division into small squares is here dispensed with, but the whole subject is a repetition of each figure four times. Draw the diagonals of the square, and from the angle of the Panel draw the quadrant *a*, and within it the circle *b*, touching *a*, *b*, *c*. Divide the radius of *a* into three parts; the diagonal of the first gives the radius of the smaller circle *c*. Within the quadrants the space is filled by four equal circles *d*.

Plates X. and XI. are small examples, above the larger Panels in the view of the Screen. These have been terminated by an enrichment of leaves, a portion of which is still left.

Plate X. Draw the diagonals *a. a*, and within them the semicircle *b*. from the centre *a*, on the smaller side of the parallelogram. The semicircles *c* are from *b b*, on the longer side. The semicircle *d*. is a repetition of this.

Plate XI. Draw the semicircles *a. a*; and from *a*. produce that marked *b*. The radius of *c*. is one-sixth the length of the Panel, and that of *d*. one-third the width. *e*. is from the figure *b*, touching the line *d*. at *c*.

The border in this Plate belongs to the Screen in the aisle of the Choir. The leading lines are only repetitions of the tracery described on Plate V.

Plate XII. *Archway of the Screen*—Draw the semicircle *a*. from *a*, and divide its radius into 11 parts. From figure 6, produce the quadrant *j*, and from *b*. the semicircle *k*. Draw a line from the centre *a*. through the angle *b*. The point *d*, equal in distance from it as *b*, *c*, is the centre of the curve *e*. *e*. is a repetition of this upon the line *c*. The smaller curve *u*, is portion of a semicircle touching *f* and *c*, its centre being on the boundary line of the Panel. The upper portion of the curve is a repetition of this from the point *c*. *e* is a quadrant from the centre *a*, and the lower part or continuation *f*, is from the centre (*d*), upon a line drawn from *a*, through the 12th part of the scale before named.

Plate XIII. is a large Panel upside down in the view of the Screen. This specimen did not originally belong to it, and has been placed there to

fill up a gap, occasioned by the destruction of the original work. It is represented at *a*, the remainder of the Plate being a portion half the full size.

Plate XIV. *The Parapet.* The great semicircle forming the leading line of the figure is the same as described in the border of Plate XI., and the remainder of the tracery is very nearly the same as in Plate V. The outline of the border-leaf is the diagonal of a square.

Plate XV. is a repetition of the same circle, whose centre is the intersection of each division or square.—Produce the circle *A*. from the centre *a*, and corresponding circles from *b* and *c*; their intersection cuts off 1-6th from each side of *A*, marked *B* and *c*, and represented by the dotted line.

Plate XVI. Divide the panel into four portions, and draw the diagonals *A. A.* Within each triangle strike the circle *B*, and in the angles of the square the small circles *C. C.* The arc *D* is a portion of the first circle.

Plate XVII. Draw the diagonals of the square, as *A. A.* Within the triangle draw the circle *B*, and within this the four smaller circles *C*, the parts represented by the dotted lines being left out in the complete figure. Draw the circle in the angles of the square (*D*.) The limit of the circle *E*. is determined by a perpendicular, *a*. dropped from the centre of the circle *B*.

Plate XVIII.—*Borders.* Figure *A.* is in the doorway of the Choir against the Bishop's Throne. This elegant little specimen is the repetition of semicircles whose radius is one half, and one quarter the width of the border; the ground-work being precisely the same as the majority of the Panels—namely, four squares each way.

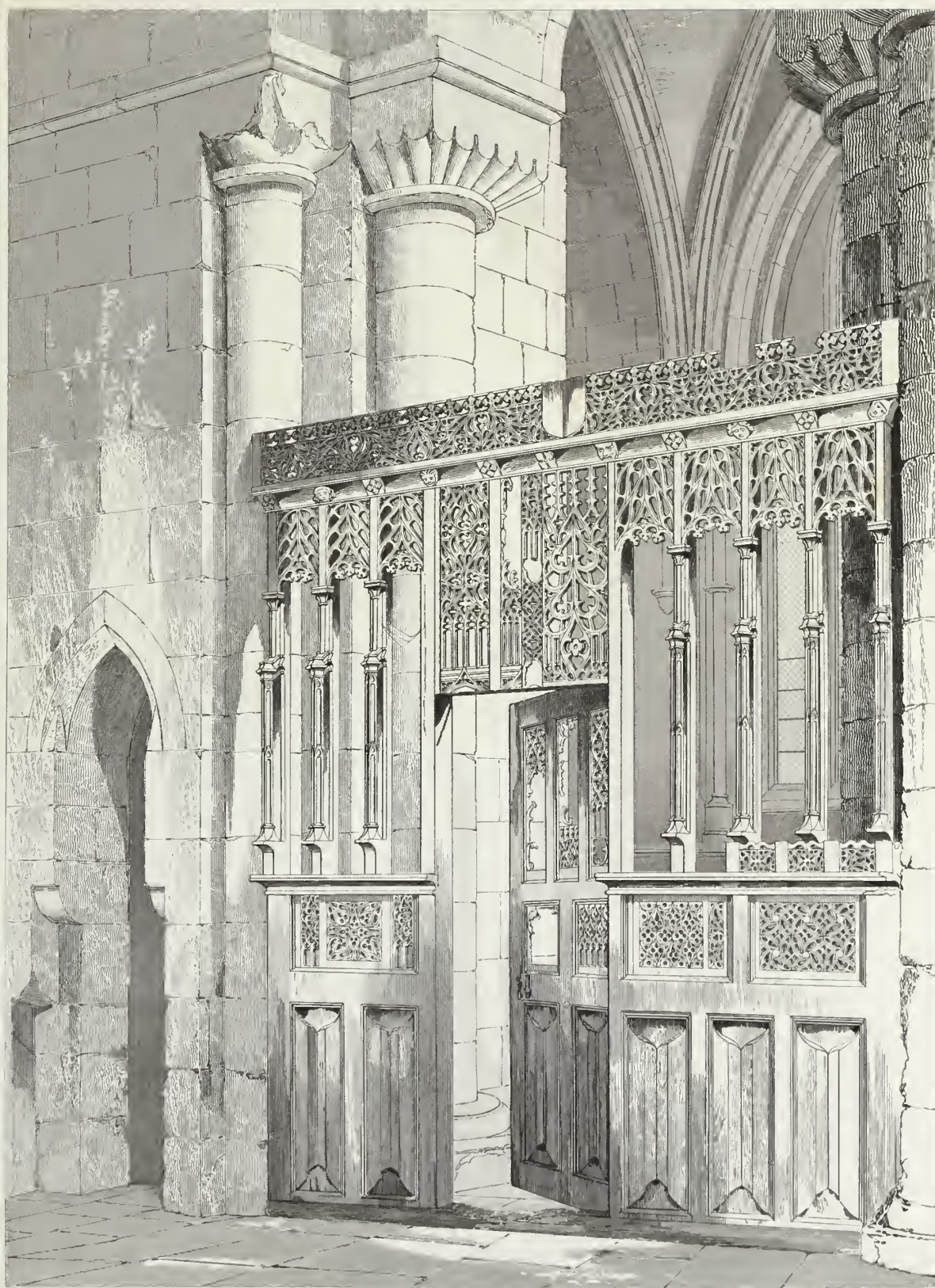
Fig. *B.* is peculiar for the leafy border on each side.

Fig. *C.* is the same as the subject of Plate XV. And

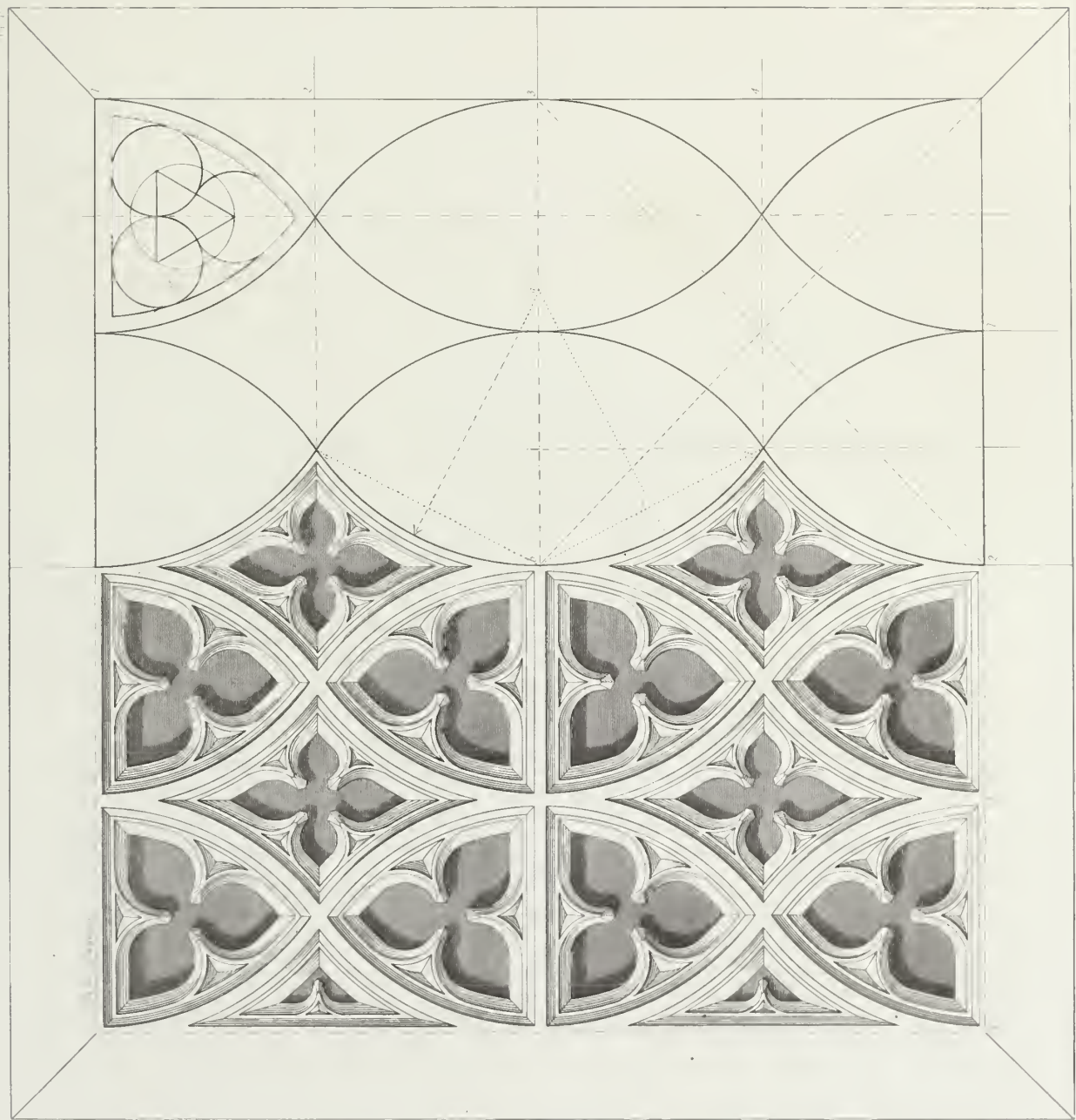
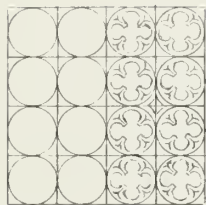
Fig. *D.* very strongly resembles the Tracery of Plate V.

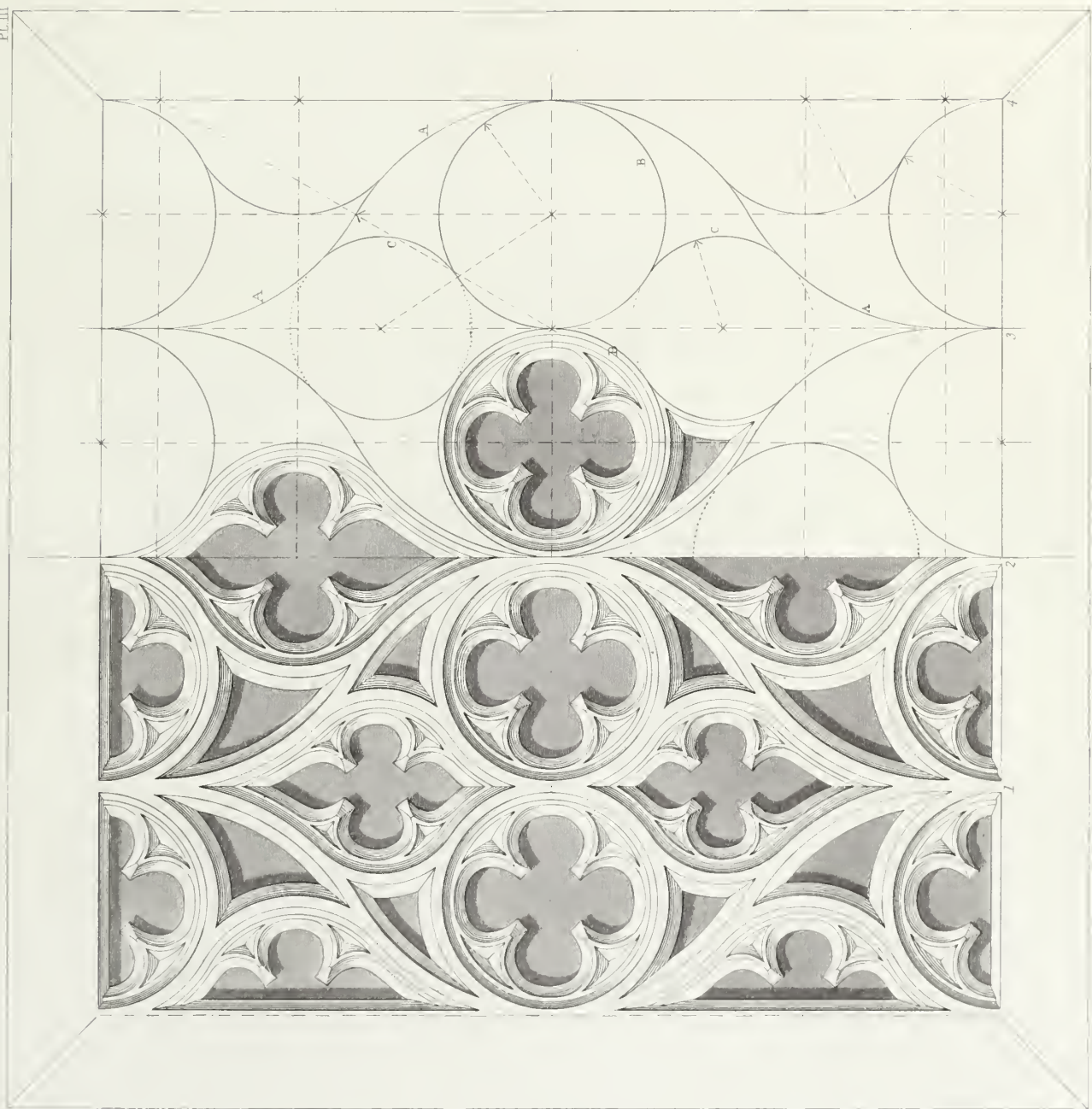
Plates XIX. and XX. All that remains of these Panels is the framework and ends of the tracery.—No. XIX. has sufficient to identify the design, but No. XX. is not to be depended on for originality. They are both peculiar from the sub-division of the Panel into four distinct parts, by the diagonal rib of Plate XIX., and the cross-rib with the angles rounded off in Plate XX.

THE END.



CHURCH OF ST. THOMAS, CHAPEL



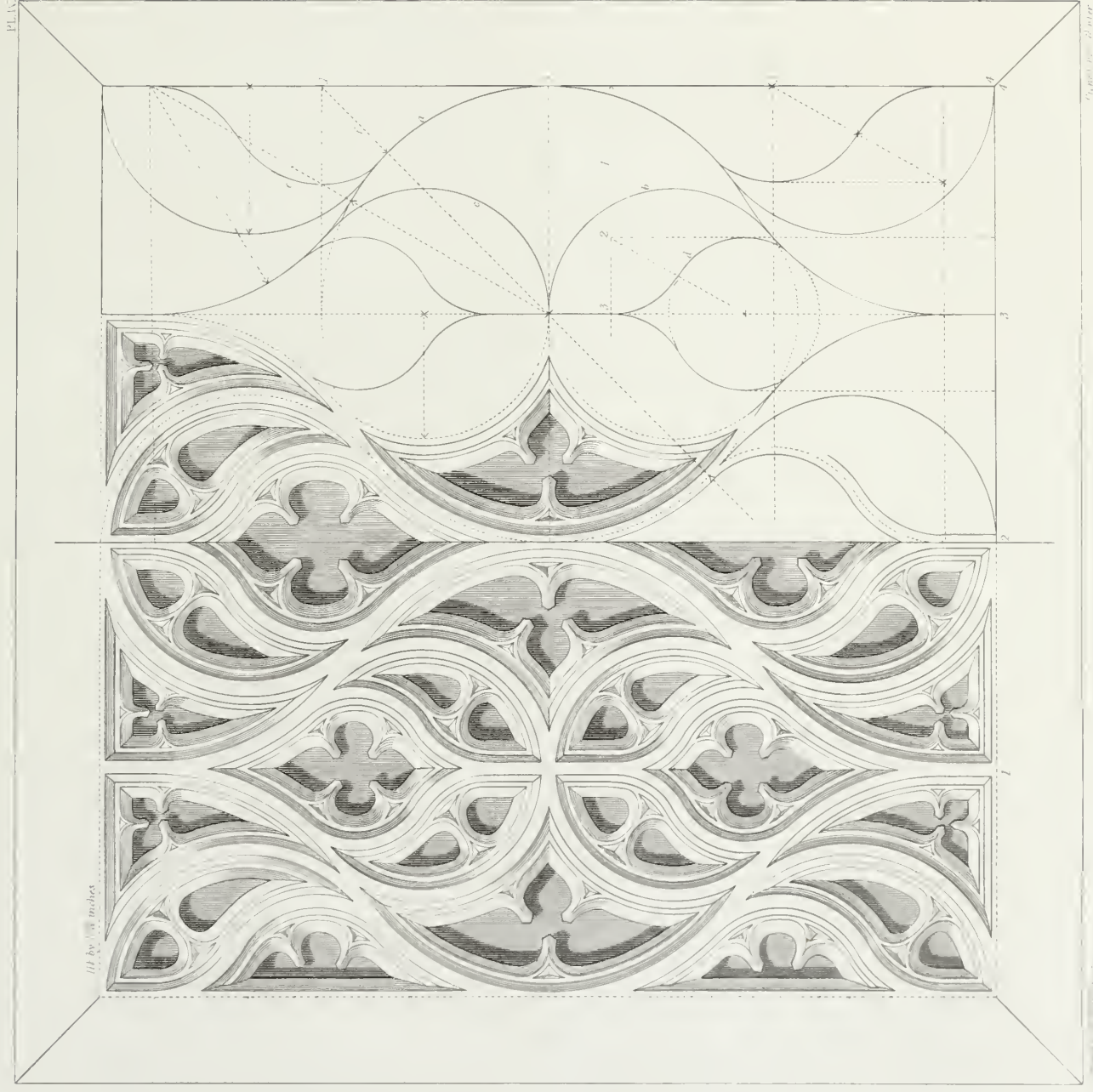


Drawn by R. N. W. 4.

Etched by G. B. Smith.

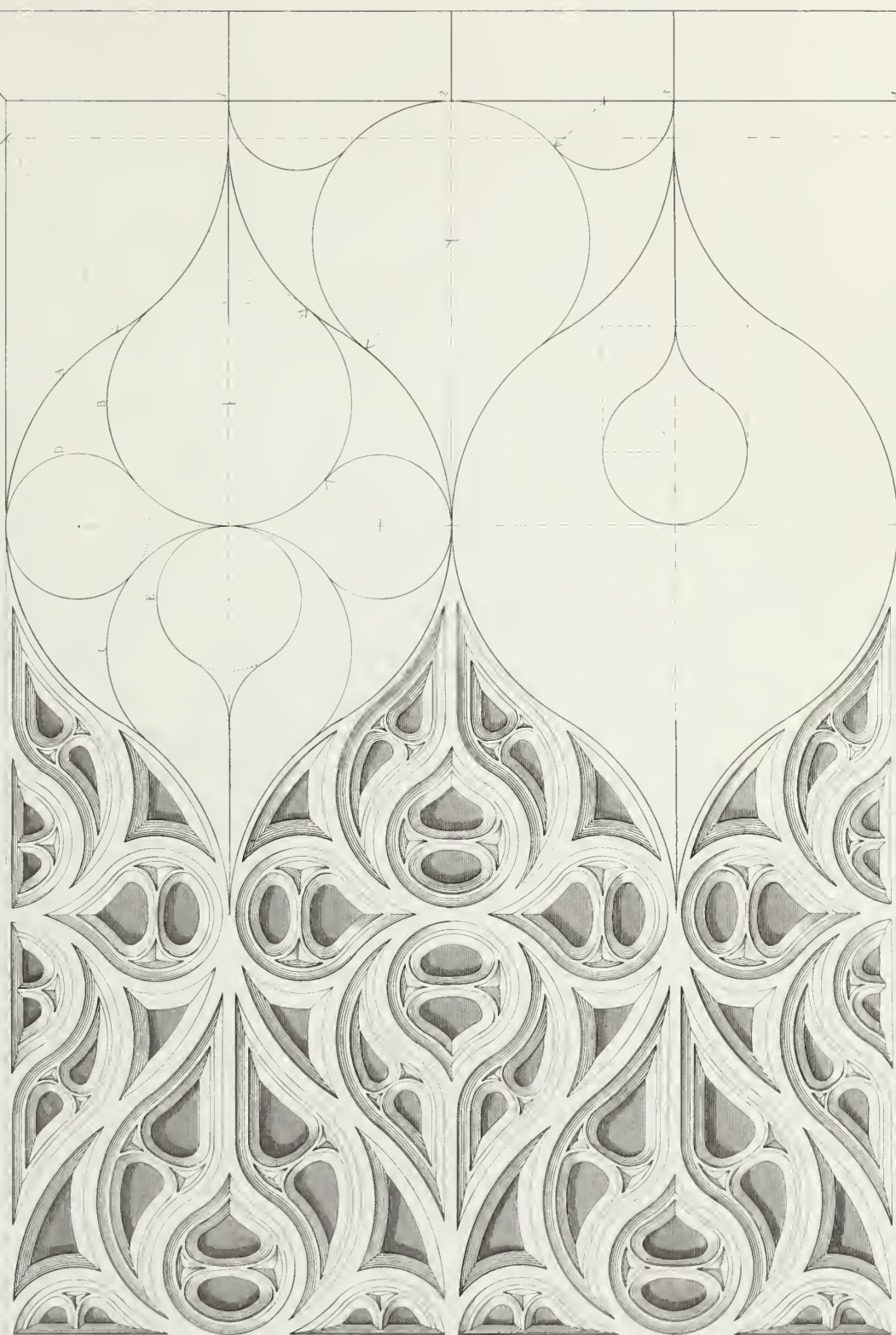
THE TRACERY OF CARLISLE CATHEDRAL.

London: Published by F. & C. Johnson & R. Wallcut, December 1880.



1/2 by 1/2 inches

FIGURE 1



Arch. Lindes

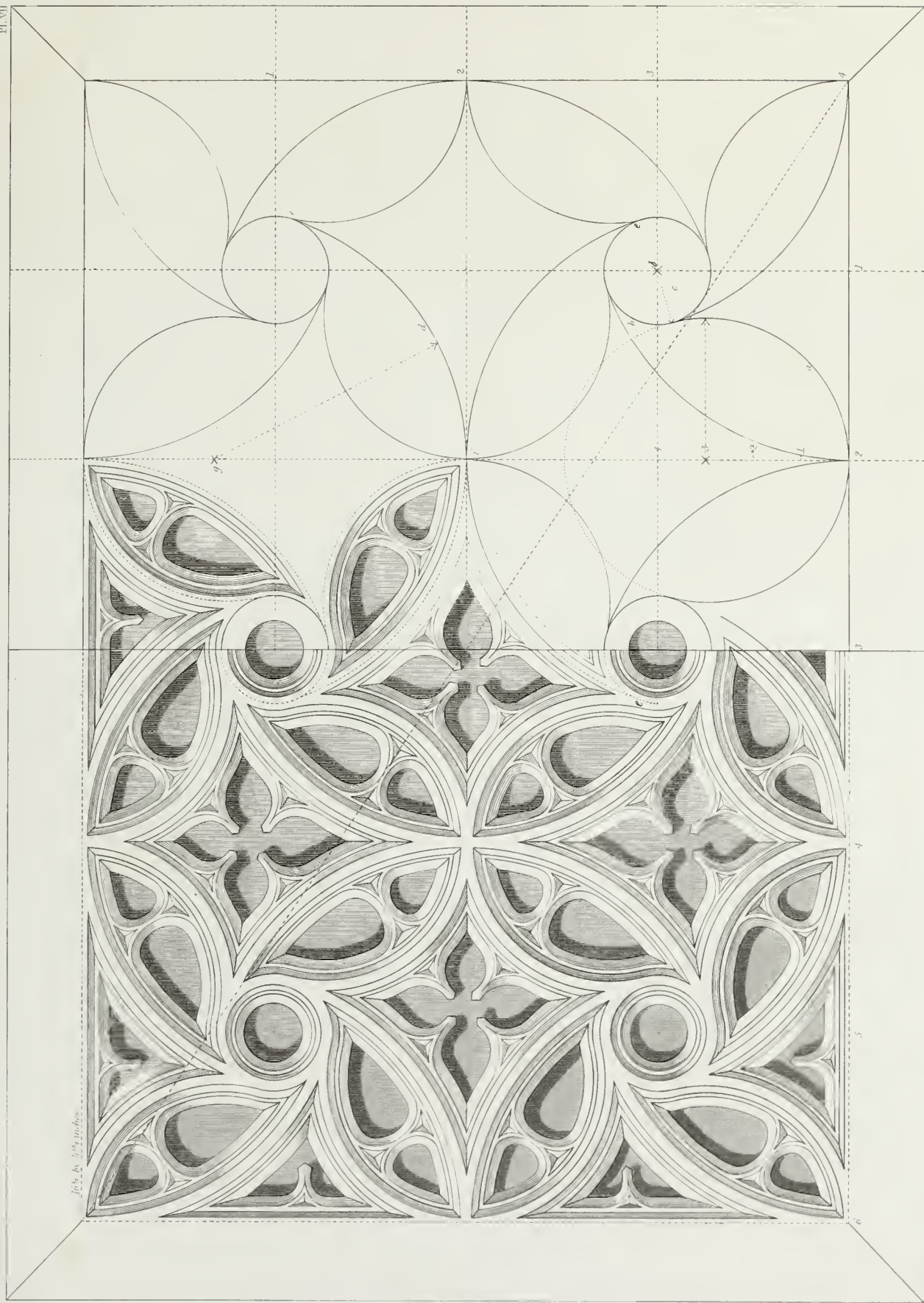
Arch. Lindes

See also Plate V



See also Plate V

See also Plate V

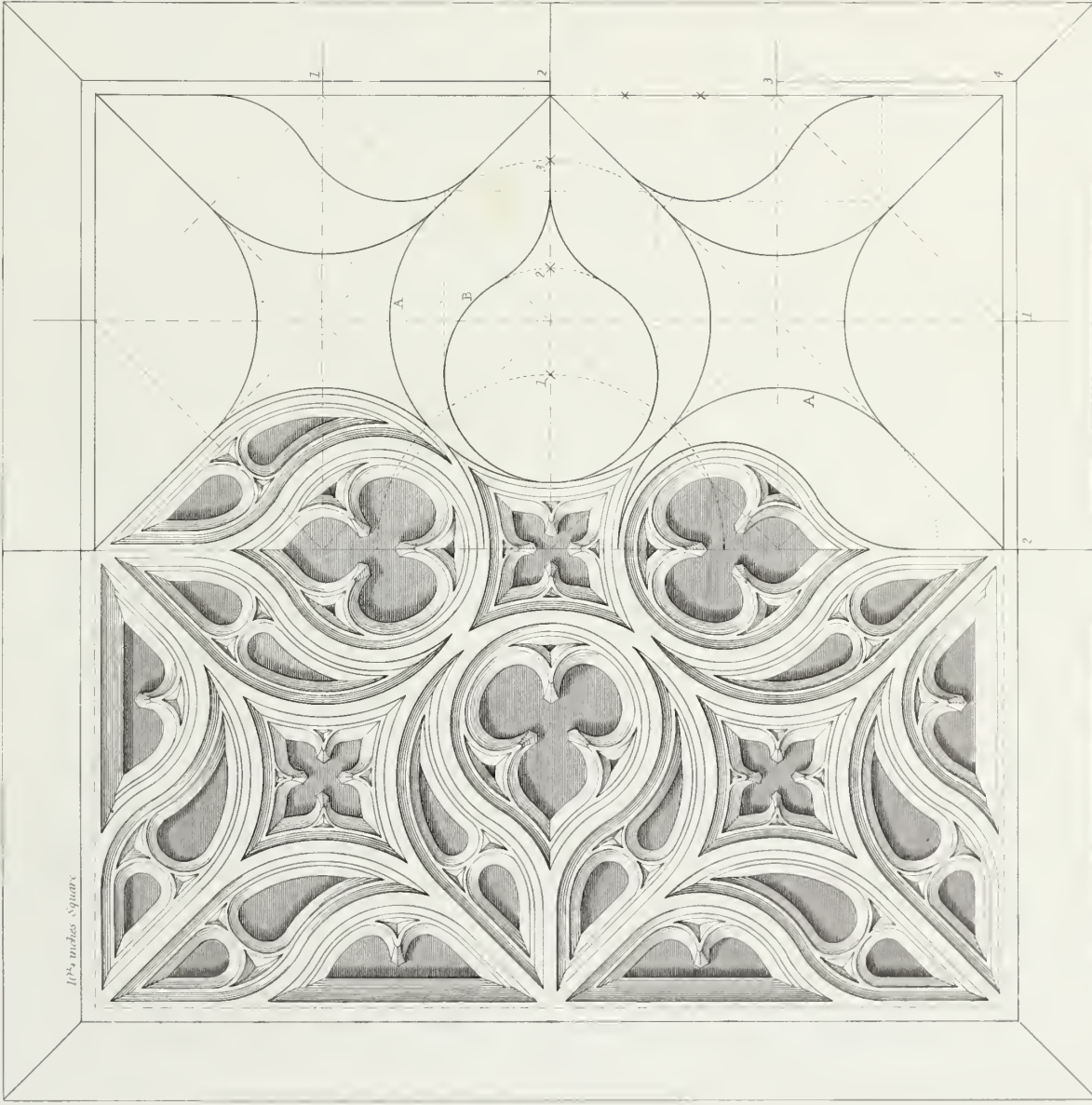


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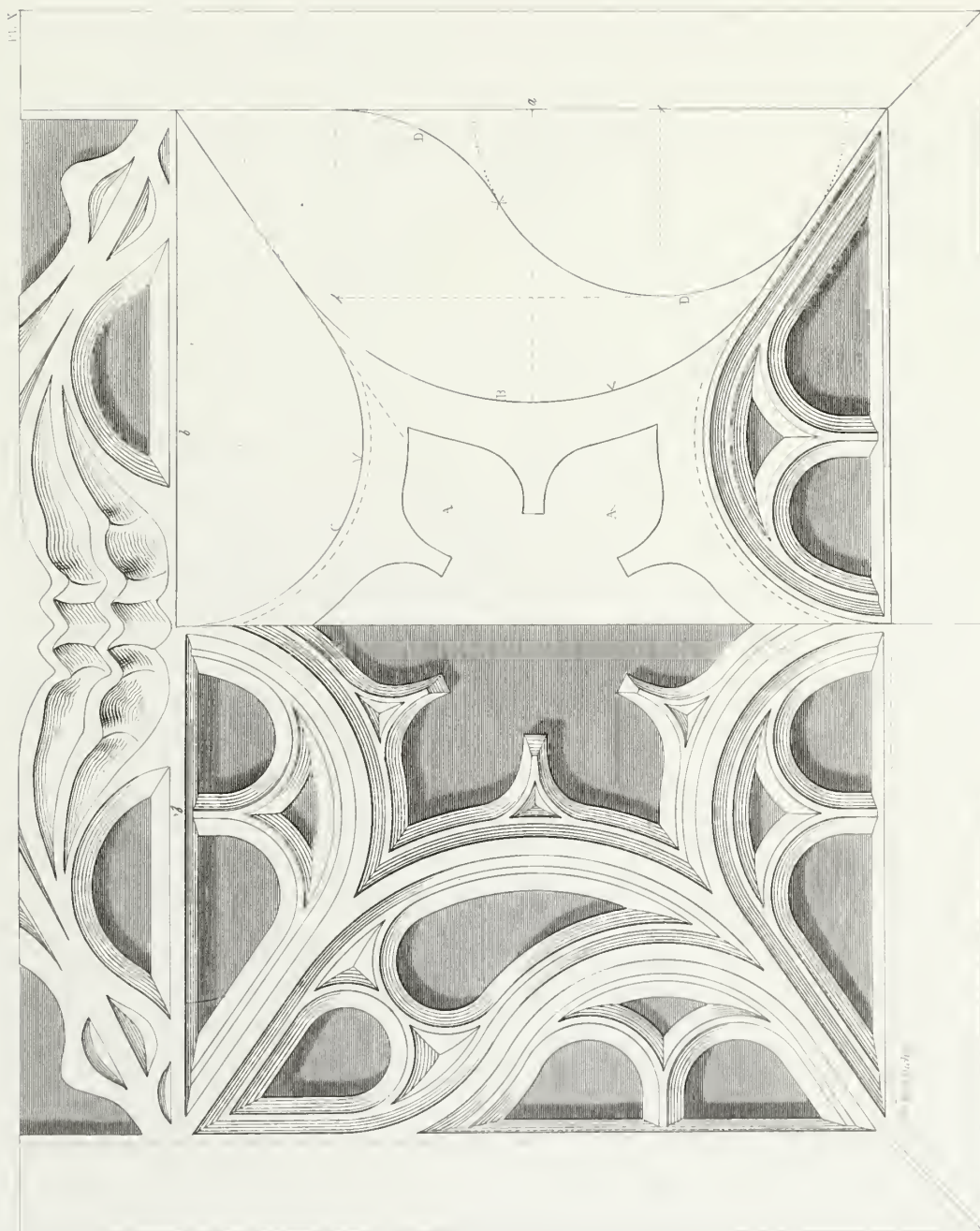
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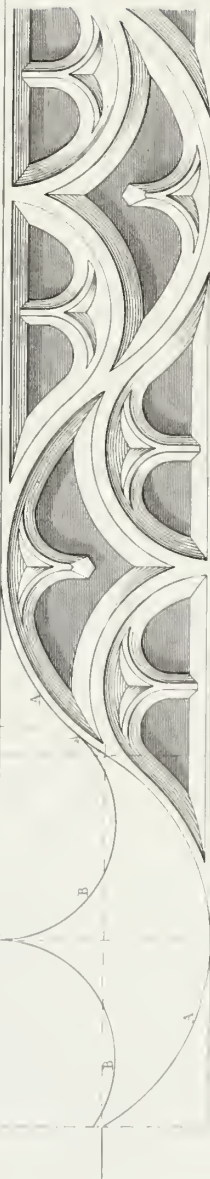




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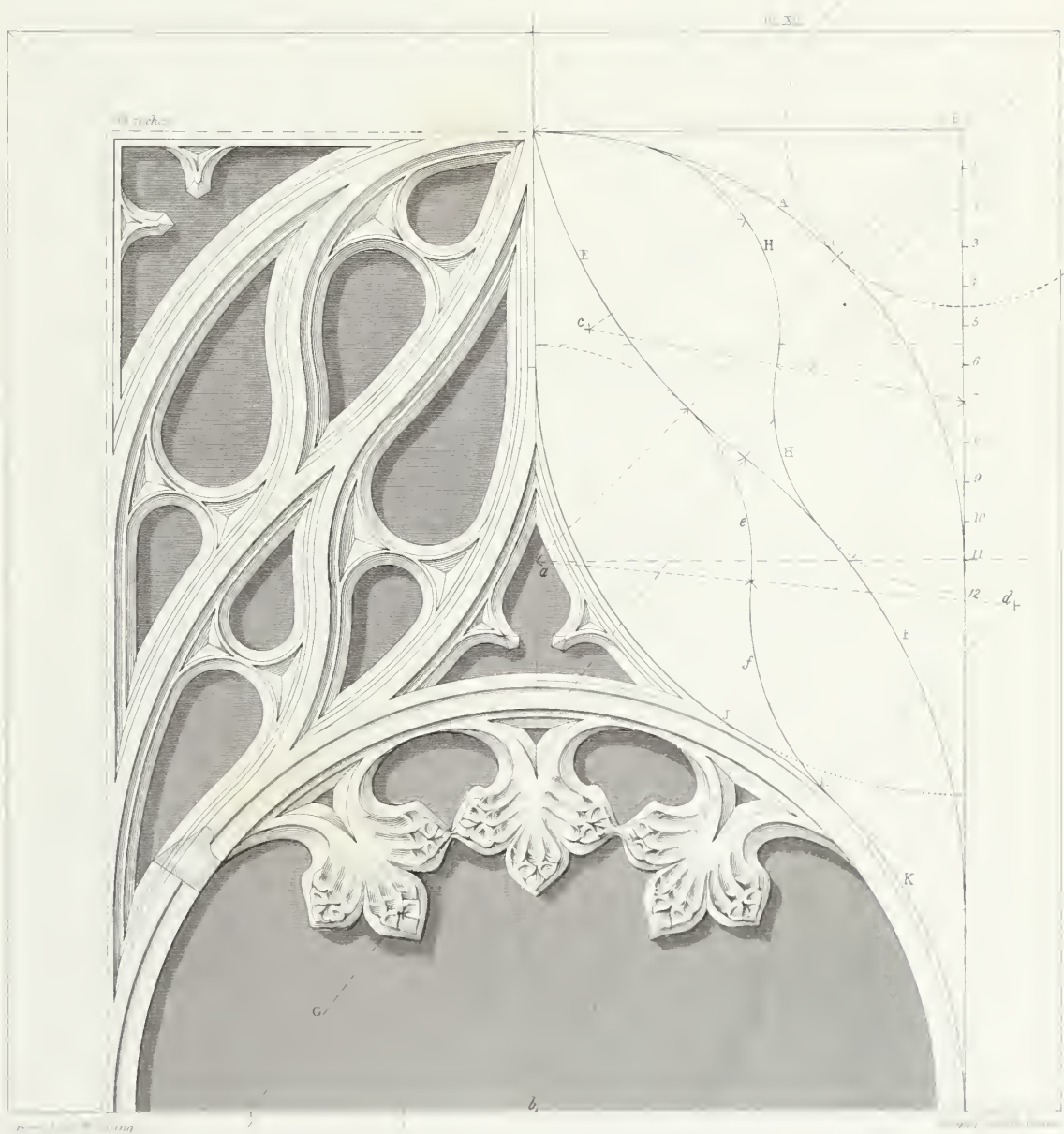
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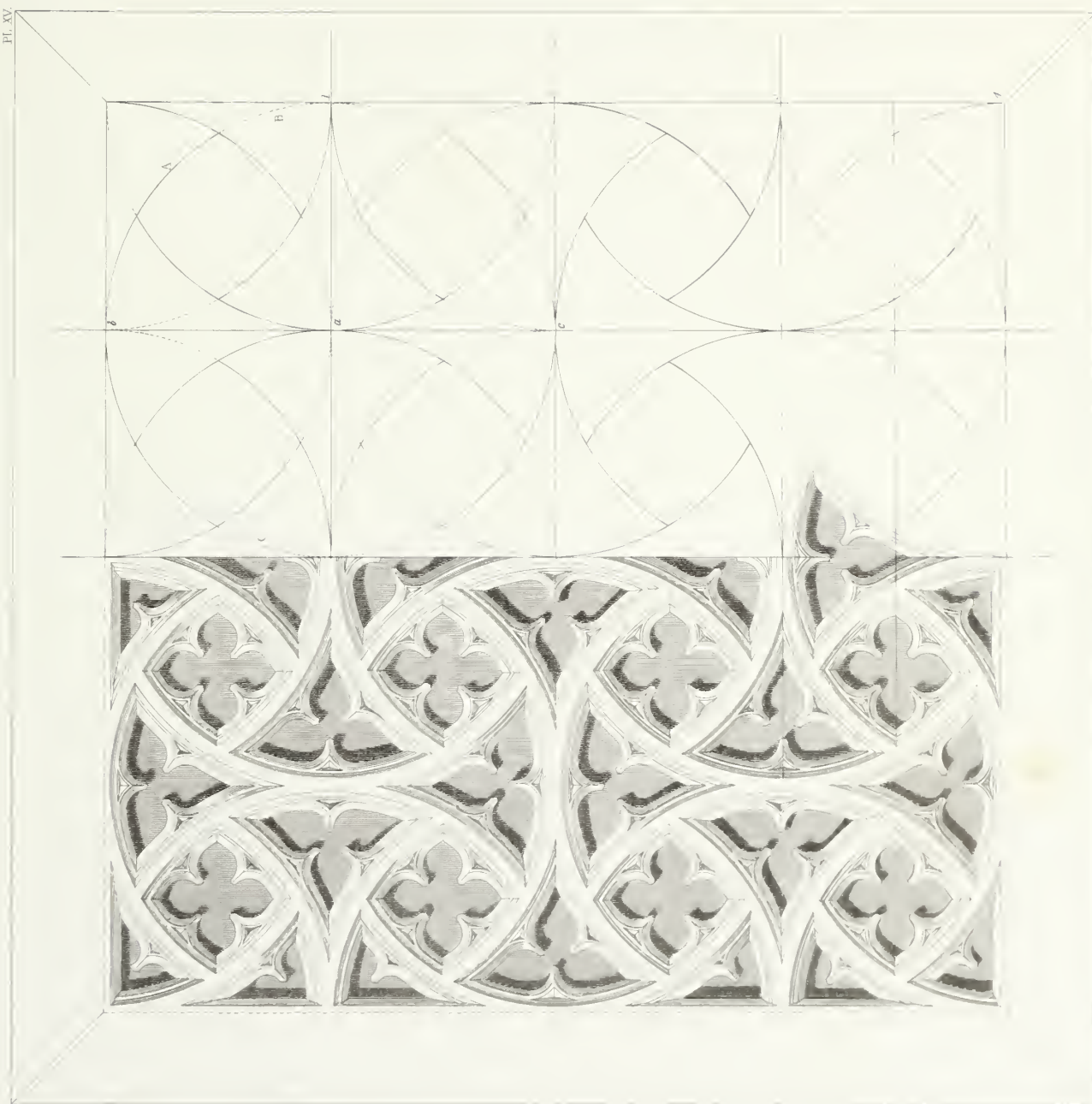
DESIGN FOR A WINDOW TRACERY

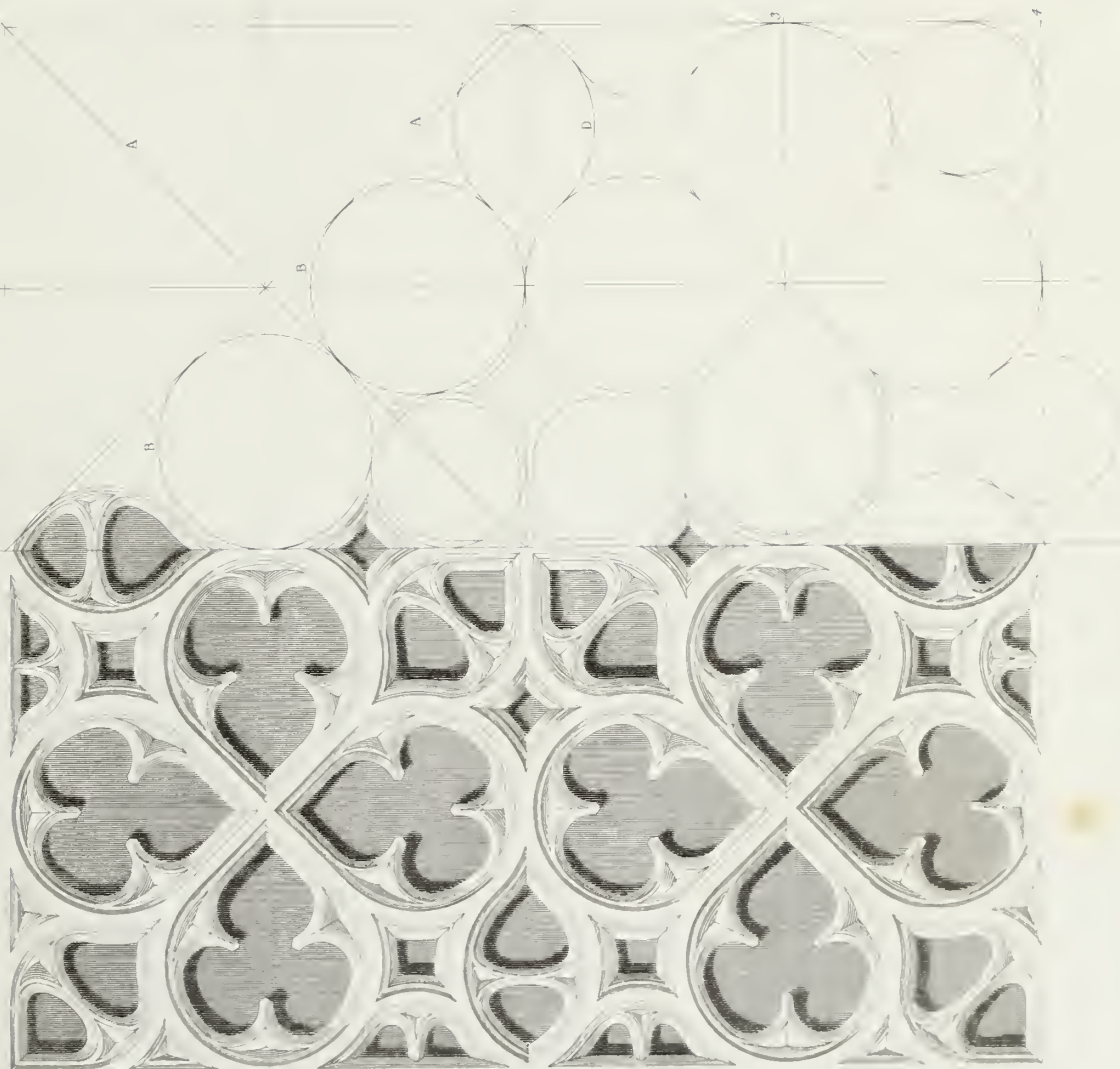
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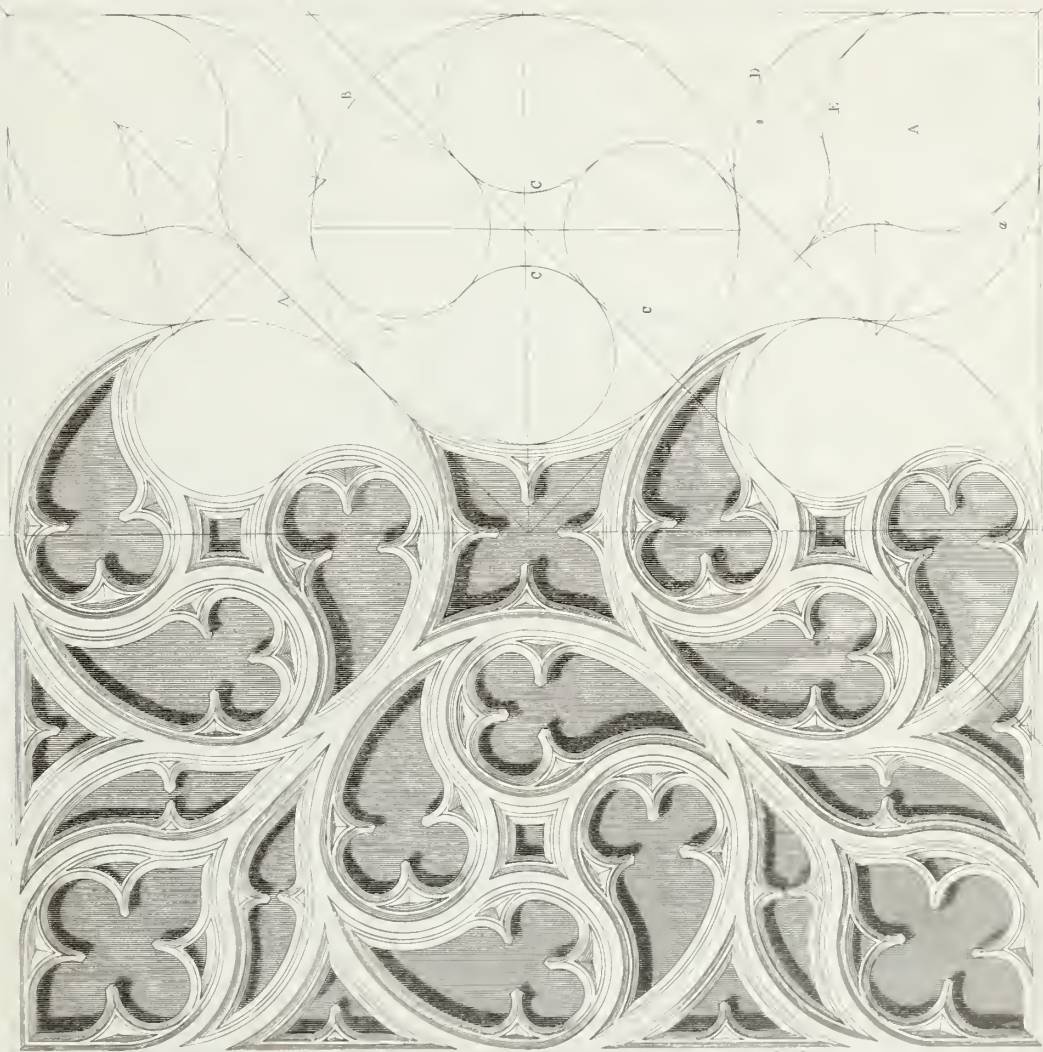


Tracery of the window of the church of St. John the Baptist, London.

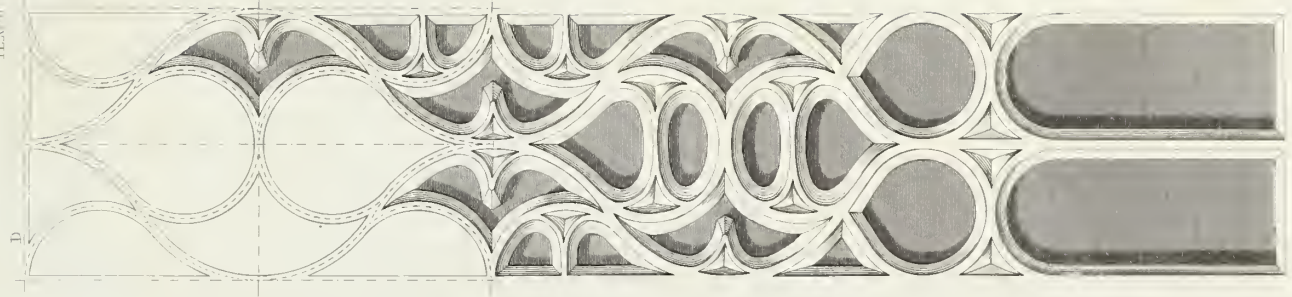
Tracery of the window of the church of St. John the Baptist, London.



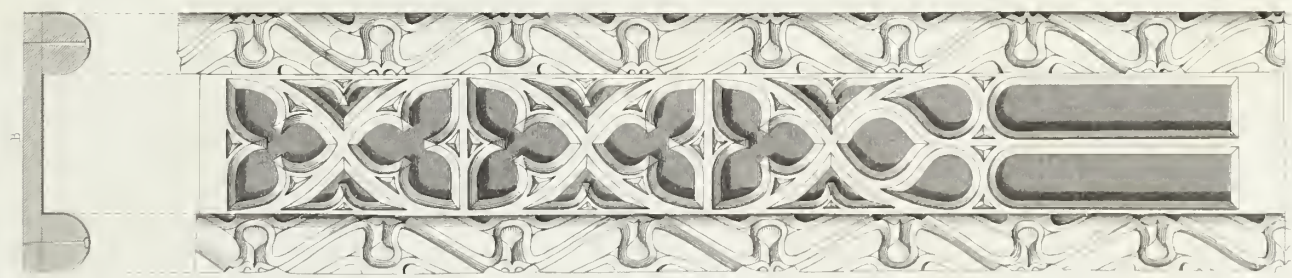
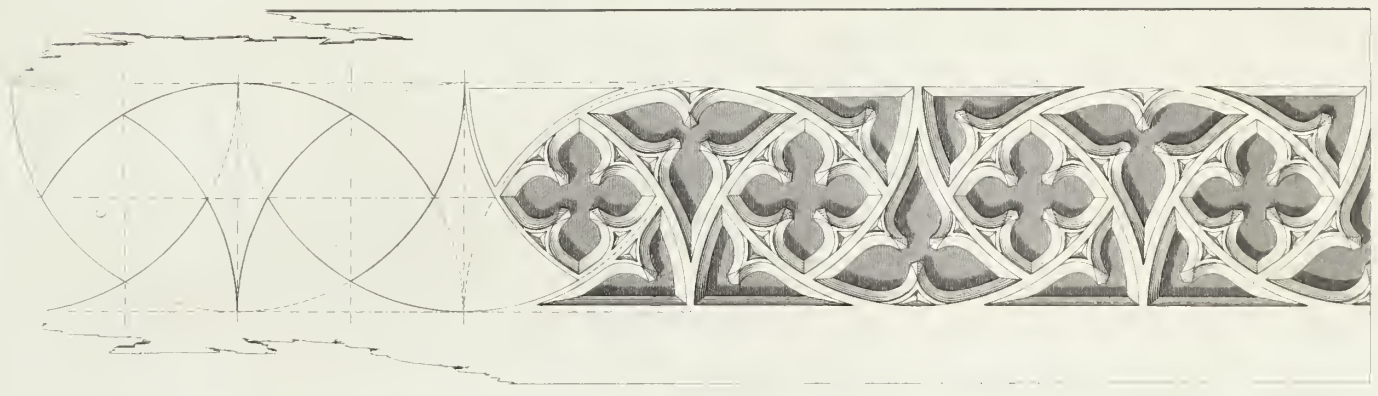


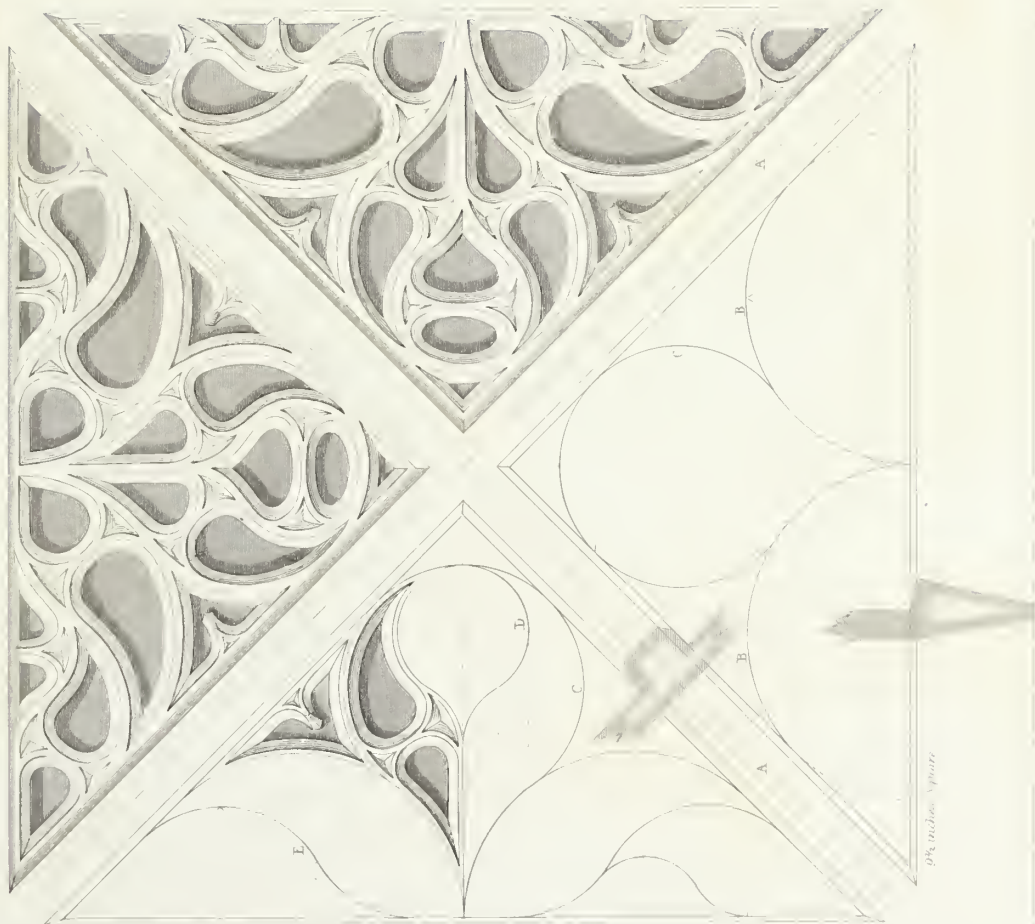


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